TRAPEZE NETWORKS

A BELDEN BRAND

Mobility Exchange® MX-216R

DATA SHEET

Mobility Exchange MX-216R

Intelligent WLAN Controller for data center or wiring closet deployment. Supports up to 192 access points and features 16 POE ports.

The Mobility Exchange (MX®) family of intelligent WLAN controllers provide the platform for Trapeze Smart Mobile® wireless networks.

Mobility Exchange MX-216R

The MX-216R is designed for data center, or distributed wiring closet installations, and enables seamless and secure deployment of enterprise class wireless networks over any existing L2/L3 network without disruption.

The MX-216R supports up to 192 access points. Licenses come in increments of 32 supported MPs for optimum price performance throughout the growth of your wireless LAN. It also features 2 Gigabit Ethernet ports which accept Small-Form Pluggable (SFP) optics for 1000BASE-SX/LX fiber connectivity, or 1000BASE-T unshielded twisted-pair (UTP) environments, 16 10/100 Fast Ethernet ports with Power-over-Ethernet (PoE) support, and comes with a redundant power supply as standard.

Operating in conjunction with Trapeze Mobility Point® (MP®) access points, and Mobility System Software™(MSS™), MX controllers can offload policy enforcement and data forwarding to the MPs, resulting in optimized traffic flow, radically reduced latency, and massive scalability.

The MX-216R combines L2 Ethernet switching, stateful per user and per service firewalls, wireless intrusion protection, 802.1Q trunking and per VLAN spanning tree (PVST+), complete wired to wireless quality of service (QoS), and automated RF management. Clusters of MXs called a Mobility Domain™ provide seamless roaming, intrusion protection and RF management over the largest single site wireless LAN deployments. A Network Domain™ interconnects and distributes Mobility Domains to enable identity-based networking across wide geographic regions.

MX controllers can be configured as a virtual controller cluster to provide many-to-many redundancy, without needing expensive hot standby controllers. This enables NonStop Wireless availability for all sessions, even voice calls in the event that a controller goes offline for any reason.

The MX-216R uses the same Mobility System Software as all other Trapeze MX controllers. For more information about the security and networking capabilities of the MX-216R, please read the Mobility System Software data sheet.

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Key Features

Scalability and Reliability	
Number of managed Mobility Point access points	• From 32 to 192 depending upon the licensing options ordered
Platform Reliability	• Redundant Power Module as standard
Network Reliability	• EtherChannel™ load-shared, redundant links • Spanning tree and per-VLAN spanning tree (PVST+) • Resilient network attachment via any MX port • N:1 and N:N redundant MX capabilities
Security	
Authentication	• Supports complete local AAA authentication, including 802.1x, as primary or backup to a centralized AAA server • Supports multiple AAA server groups and can load share across multiple AAA servers or within a server group • Generates and manages X.509 digital certificates • Assigns and enforces per-user authorization policies that are managed centrally from the AAA back-end • Authorizations include virtual private group membership, personal firewall filters, time-of-day/day-of-week access, encryption type, and location-specific policies • IEEE 802.1x with multiple EAP types (TLS, PEAP/MSCHAP, TTLS) • WebAAA, MAC, Open • Wi-Fi WPA2 Enterprise certified
Encryption Key Management	• Encryption distributed in Mobility Point access points • MX generates master and session keys • Provides key management for each encryption technique
Management and Control	
Management access	• Command Line Interface (Console serial port, telnet, SSHv2) • WebView web access (https) • SSL, XML (to RingMaster®) • SNMP v1, v2c, v3 • Syslog support for system monitoring • Detailed audit logging for change control • Remote packet capture ability for advanced troubleshooting
RF Management	• Automated MP Power/channel auto-tuning • Dynamic Frequency Selection compliant (DFS3)
User management and statistics	• Detailed per user session RF accounting statistics management • Tracks the location, roaming history, virtual private group, network addresses, state, activity, errors, usage and other attributes by user name, session, VLAN, user group or other • Provides per user audit trail and chargeback capability through the accounting component of AAA
MP management and control	• Configures and controls MP access points; controls third party APs • Boot, configuration and management model compliant with the IETF CAPWAP architecture. • MX is categorized as an access controller (AC) that supports direct, switched, and routed connections • Enable Data forwarding in MX or in MP with Smart Mobile technology • Multiple MXs provide resilient control

Specifications

Hardware Specifications	
Dimensions (W x D x H)	• 17.4 in x 12.1 in x 1.7 in • (44.2 cm.. x 30.7 cm. x 4.3 cm.)
Weight	• 11.5 lbs (5.2 kg) with one power supply • 13.5 lbs (6.1 kg) with 2 power supplies
Interfaces	• 2 Gigabit Ethernet Small Form-Factor Pluggable (SFP) ports • 16 10/100 Fast Ethernet ports with integrated Power-over-Ethernet (PoE)
Environmental	• Operating temperature: -10°C to 50°C • Storage temperature: -20°C to 70°C • Humidity: 10% - 90% (non-condensing)
Power	• 100-240 VAC 50-60 Hz • Two 300 watts power supply • Max Amperage draw: 4.5 Arms at 120 Vrms, 1.7 Arms at 230 Vrms
Power over Ethernet	• Voltage output: 48 VDC nominal • Total power budget (all ports): 250 W • Power per port: 15.4 W
PoE Cable Requirements	• PoE on 10/100 Mbps RJ-45 ports using pins 4, 5 (node) and 7, 8 (return) on standard Category 5 UTP
Standards Requirements	
Regulatory Safety	• UL 609501-1, CB IEC 609501-1, EN 60950-1
EMI/EMC	• FCC PART 15 Class A • ICES 003 • VCCI • EN 55022, EN 55024
IEEE Standards	• 802.1x Port Based Network Access Control • 802.3i 10BASE-T Ethernet • 802.3u 100BASE-T Fast Ethernet • 802.3ab 1000 BASE-TX Gigabit Ethernet • 802.3af Power over Ethernet (Class 3) • 802.11 a/b/g/n, 802.11d, 802.11e, 802.11h, 802.11i • 802.1D Spanning Tree • 802.1Q VLAN tagging • 802.3ad (static config)

Ordering Information

MX-216R-xx	• MX-216 with 2 x GigE (SFP), 16 x 10/100Base-T PoE, with dual integrated PSU. Includes 32 AP license
MX-2xx-U32	• 32 AP license upgrade for MX-200R or MX-216R
SFP-SX	• 850nm SFP transceiver
SFP-LX	• 1300nm SFP transceiver
SFP-UTP	• 1000BASE-T SFP transceiver, RJ-45 connector
	• xx = NA - North America, EU - Europe, UK - United Kingdom, JP - Japan, AU - Australia and China

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